BCM Rls 6.0

Remote Access

Task Based Guide

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Remote Access

Overview

BCM Administration and Diagnostics can be performed from a remote location via a dial-up connection. This would prove useful in situations where limited configuration is required, and therefore not necessary to send an engineer to the customer site.

This guide describes how to prepare the BCM for remote access via ISDN or Modem.

Notes:

- ISDN DASS2 and DPNSS will not support dial-up/RAS connections.
- The remote configuration PC should be configured with a dial-up networking connection. The telephone number and required User ID's/Passwords should be entered in this configuration.

Required Information

Before commencing Remote Access, it would be useful to obtain the following information:

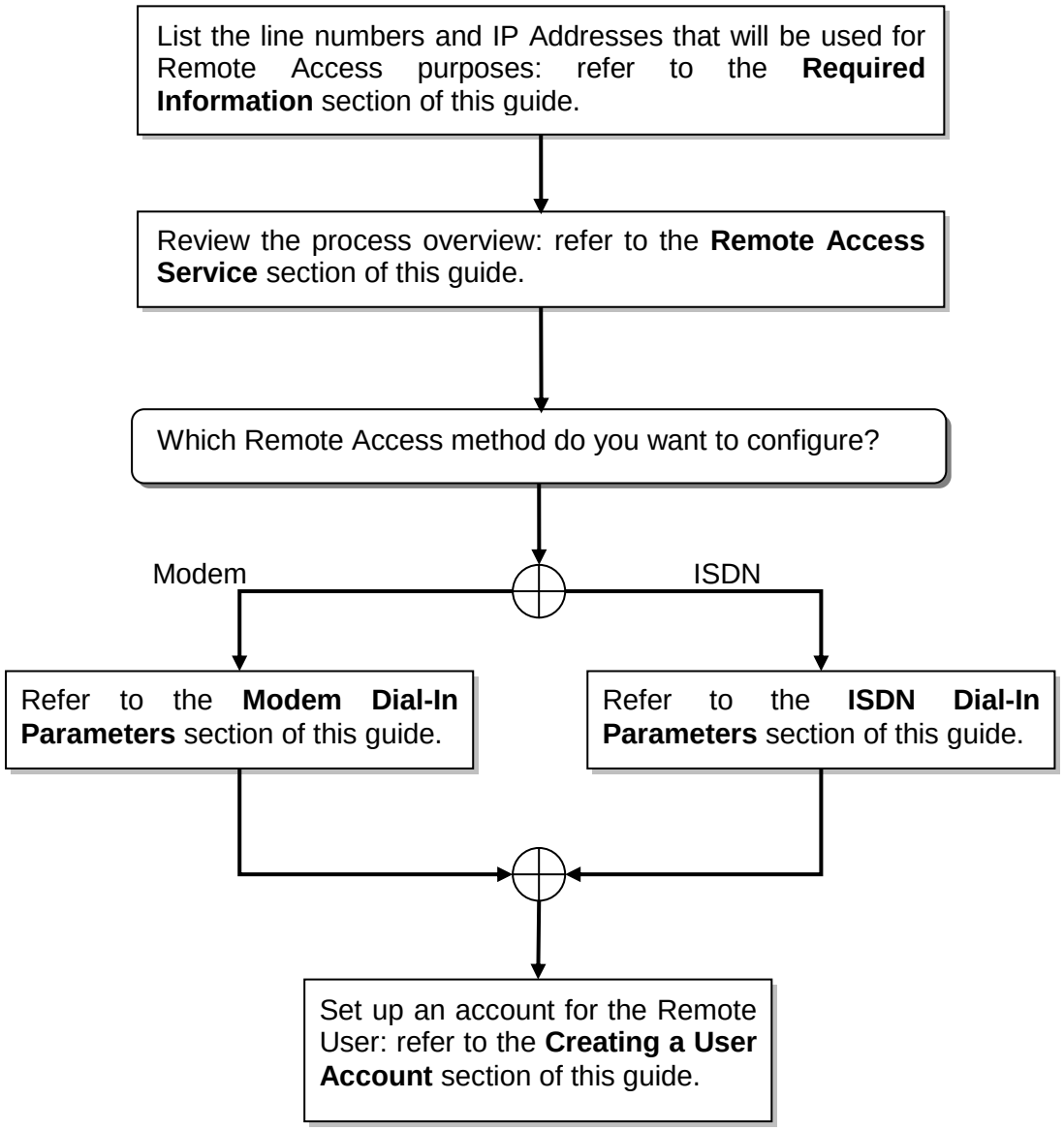
- The telephone/line number used to dial the BCM. Only the BCM line number is required for BCM configuration. The remote end requires the telephone number.

- The User ID & Password required by the remote PC to make the connection or the creation of a user account for this purpose. See the **Creating a User Account** section of this guide.

- The IP Addresses to be used at the Local and Remote ends.

Flow Chart

Use the process below to navigate through the guide and configure Remote Access capability for the BCM.


List the line numbers and IP Addresses that will be used for Remote Access purposes: refer to the **Required Information** section of this guide.
Review the process overview: refer to the **Remote Access Service** section of this guide.
Which Remote Access method do you want to configure?
Modem
ISDN
Refer to the **Modem Dial-In Parameters** section of this guide.
Refer to the **ISDN Dial-In Parameters** section of this guide.
Set up an account for the Remote User: refer to the **Creating a User Account** section of this guide.

Modem Overview

The modem on the BCM offers two key services:

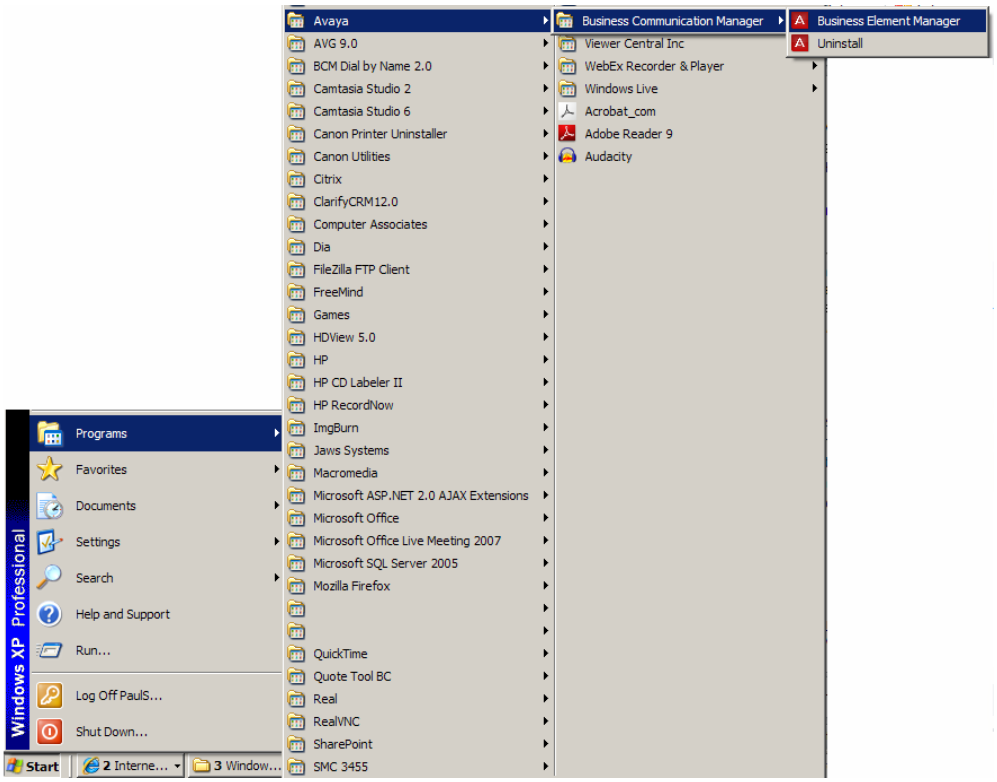
• Remote Access allows users at a client station to connect to the BCM across a phone line using Point to Point Protocol (PPP). This allows a person working from home or from a remote location to connect to the BCM LAN through a modem and a phone line.

• Auto Dial Out automatically establishes a PPP connection to a remote location through a phone line.

Accessing Element Manager

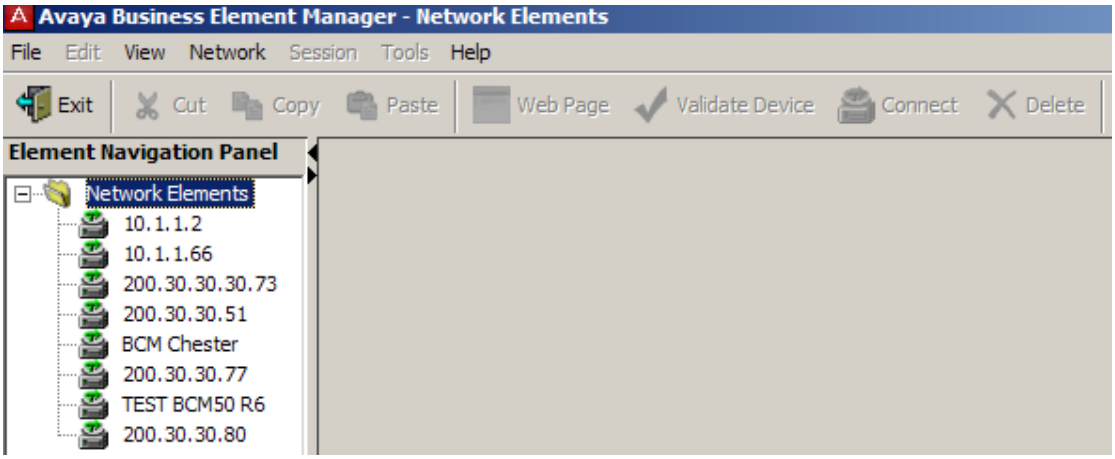
This section describes how to access the Element Manager interface.

1. To access the Business Element Manager application from the Start Menu, navigate to **Start**, **Programs**, **Avaya**, **Business Communications Manager**, **Business Element Manager**.

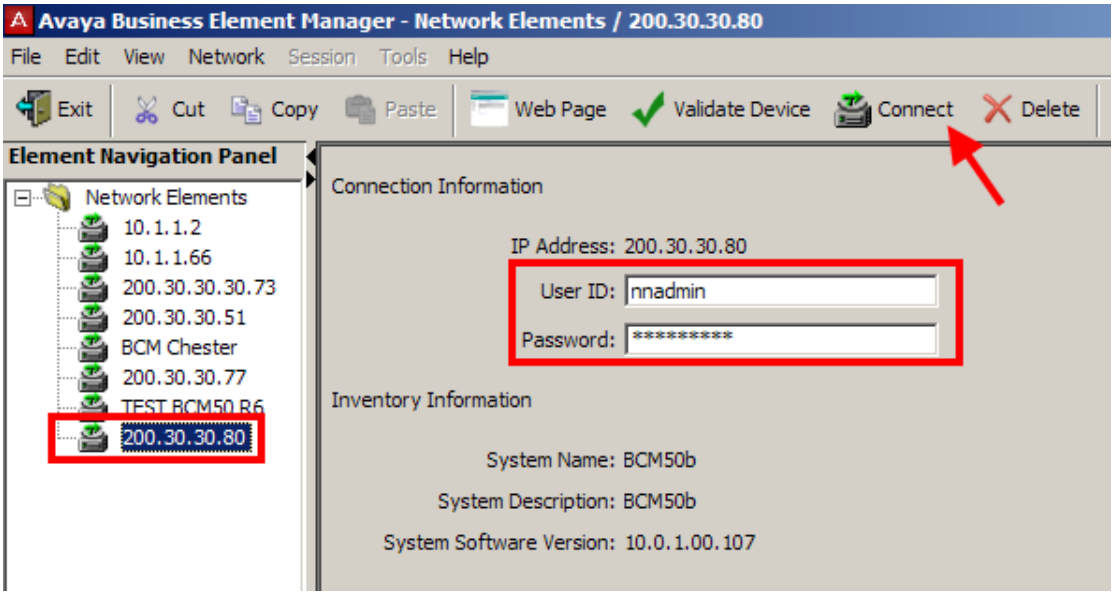


2. Alternatively, double-click on the **Business Element Manager** desktop icon.

3. You will be presented with the **Element Manager** interface.

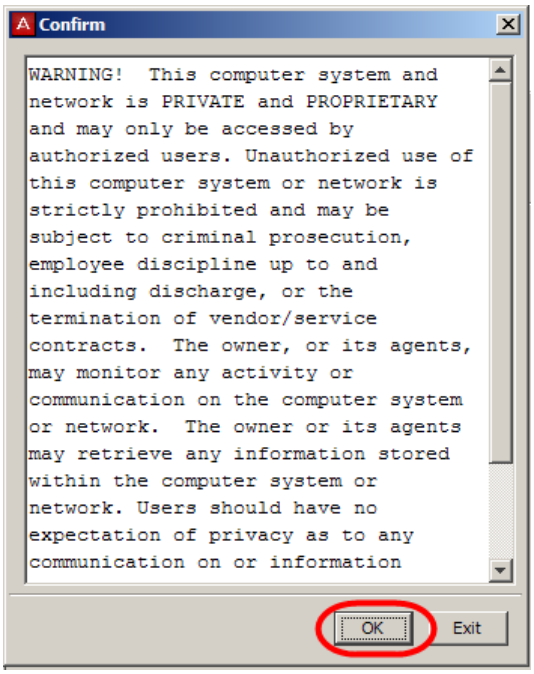


4. Open the **Network Elements** folder and select the IP Address of the BCM.

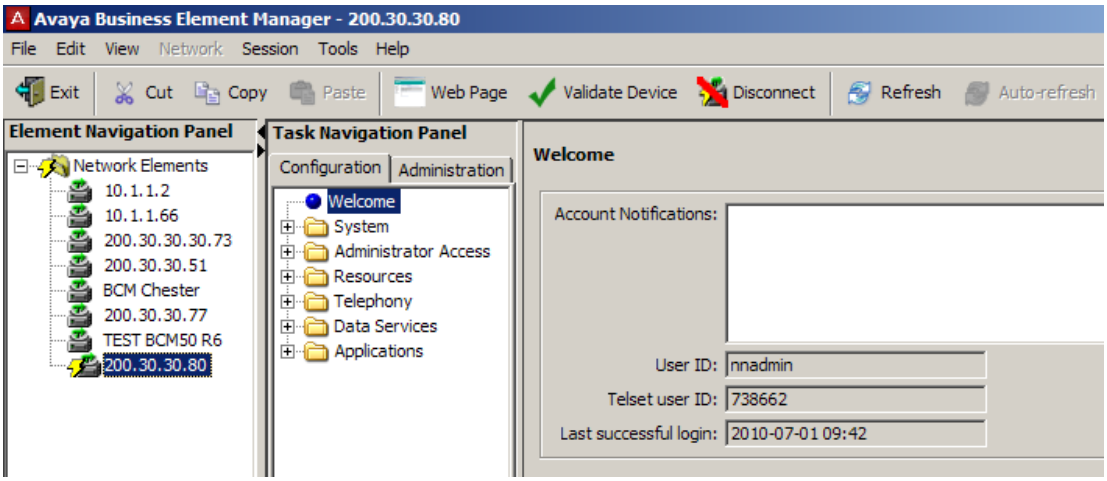


5. Enter the User Name of the BCM in the User Name field, by default this is **nnadmin**. Then enter the Password in the Password field, by default the password is **PlsChgMe!**. Click the **Connect** button.

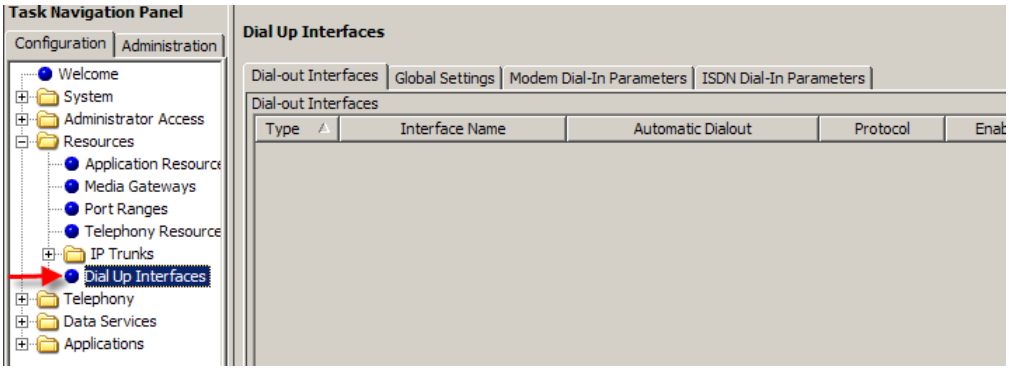
6. A warning screen will appear, read the warning and click **OK**.


Confirm
WARNING! This computer system and network is PRIVATE and PROPRIETARY and may only be accessed by authorized users. Unauthorized use of this computer system or network is strictly prohibited and may be subject to criminal prosecution, employee discipline up to and including discharge, or the termination of vendor/service contracts. The owner, or its agents, may monitor any activity or communication on the computer system or network. The owner or its agents may retrieve any information stored within the computer system or network. Users should have no expectation of privacy as to any communication on or information
OK
Exit

7. You will be presented with the Element Manager interface.



7. To access Dial-up interfaces **Configuration, Resources, Dial-up Interfaces**, and access required tab to configure required remote access settings.



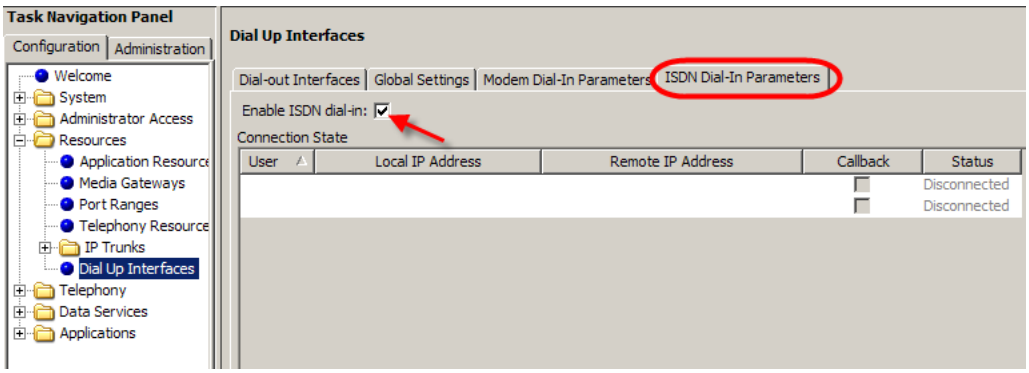
Remote Access Service

Remote Access Service (RAS) allows a client system to dial a telephone number and establish an IP link with a BCM. This link is a connection across a telephone network, between the modem on the client system and the modem on the BCM. Once this link is established, the client can run IP applications to access the BCM system's OAM server, Web Page Server or BCM Monitor.

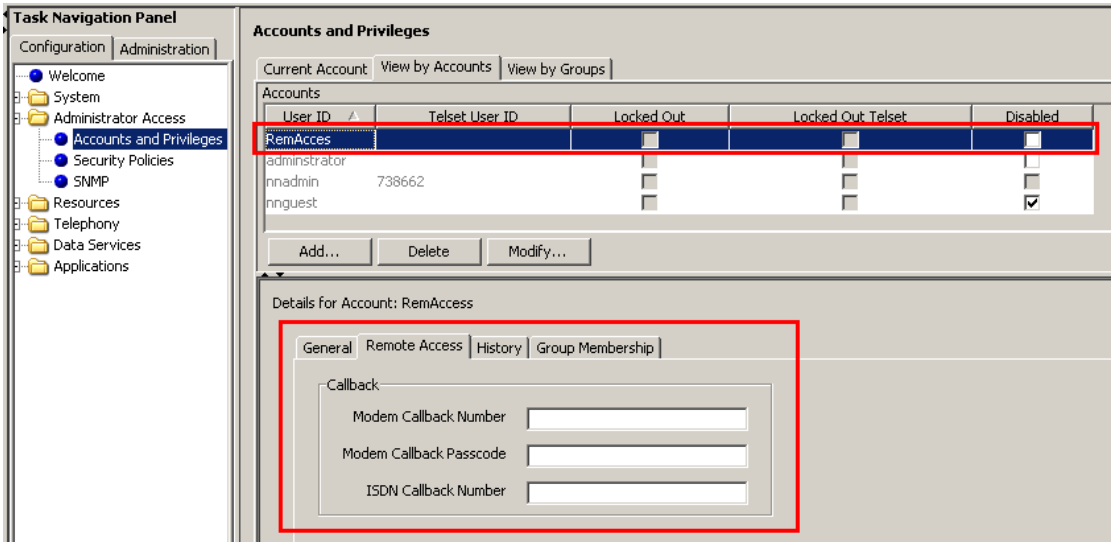
A user must provide credentials to establish the PPP connection. The credentials used must match the ones of a BCM account which has the PPP Login privilege.

This section provides an overview of how to configure the Remote Access Service. Specific field configurations can be found in the later sections of this guide.

1. The modem or ISDN interface must be enabled for a connection to take place. Click the **Modem Dial-In Parameters** or **ISDN Dial-In Parameters** tab and check the **Enable modem dial-in** or **Enable ISDN dial-in** tick box.

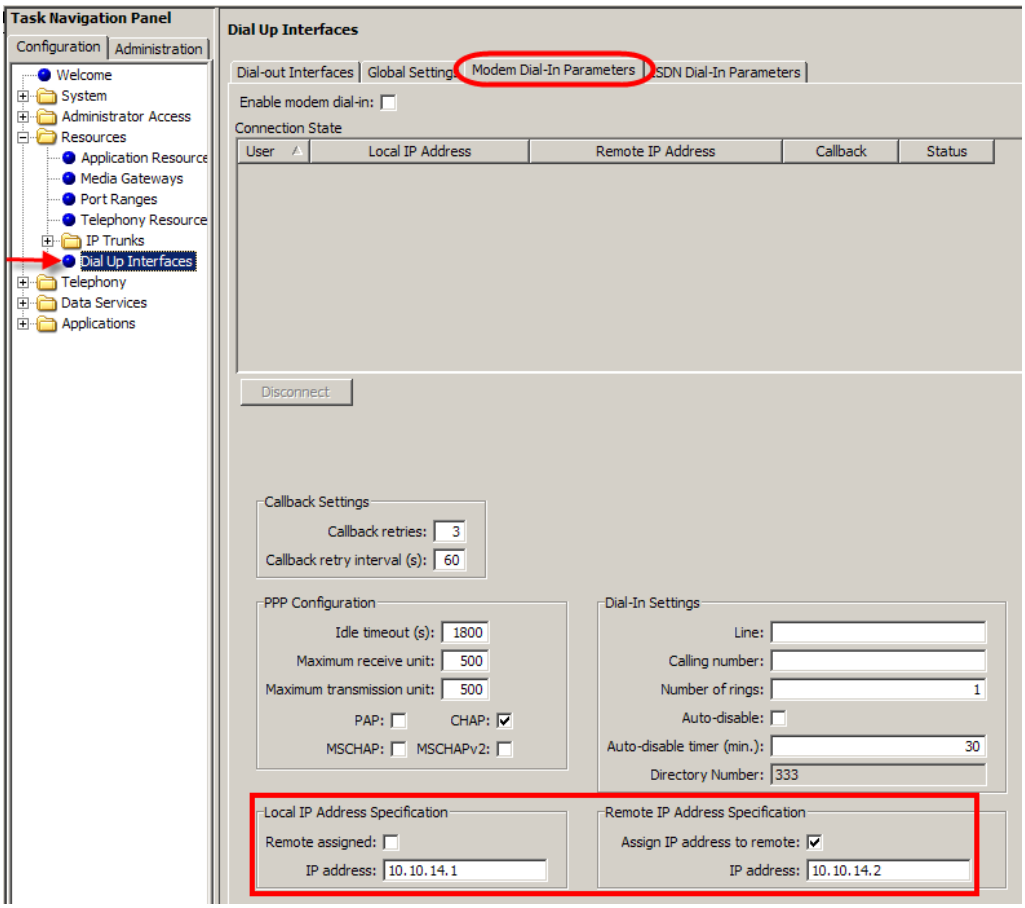


2. The BCM can be configured with call-back users along with their call-back numbers. In this scenario, the user can ask BCM to call-back before establishing the PPP connection. The BCM will validate the username and use the callback number associated with the account where the username was found. The authentication will be made using the username and password associated with the account where the callback username was found. The modem will try to call a configurable amount of time with a configurable delay between attempts. Open the **Administrator Access** folder and select **Accounts & Privileges**. Select the account to be used for Remote Access, click on the **View by Accounts** tab, and to configure the Callback settings in the lower part of the screen in the **Remote Access** tab.

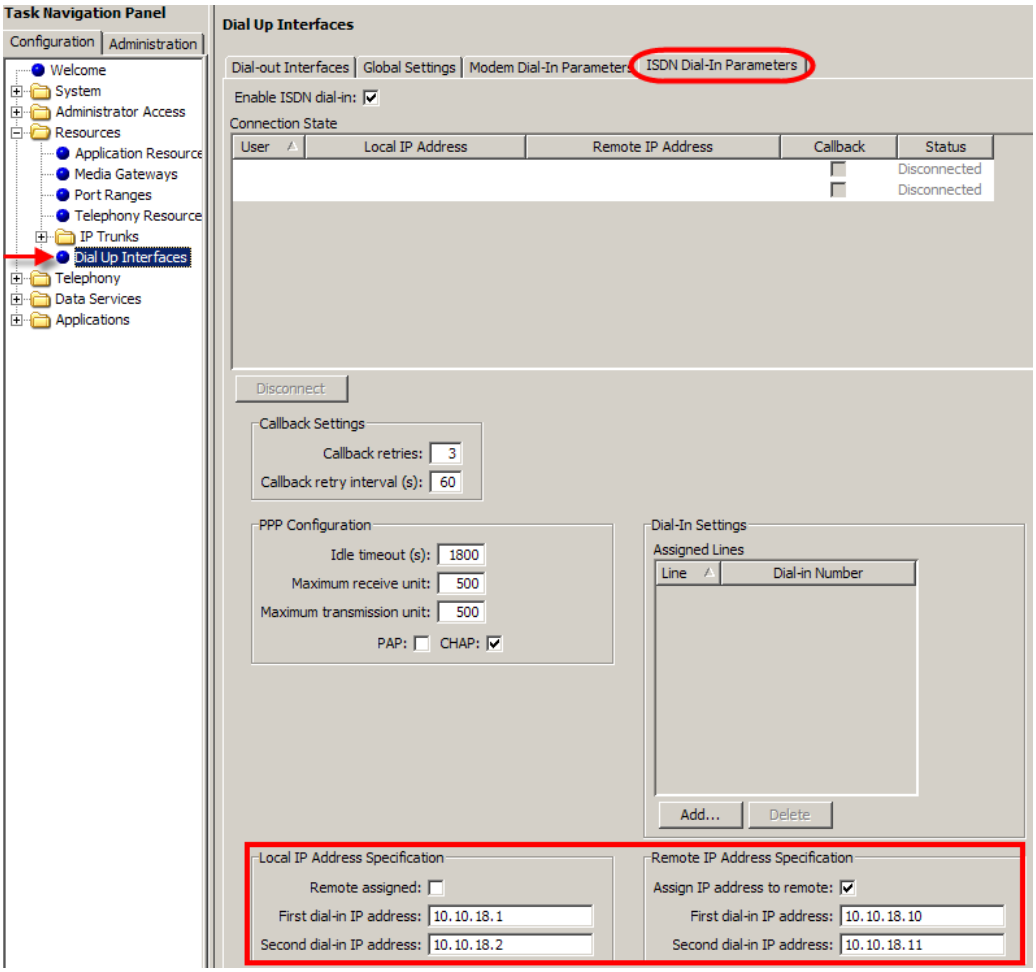


The BCM modem/ISDN interface will automatically disconnect if there is no traffic on the IP link for a configurable amount of time.

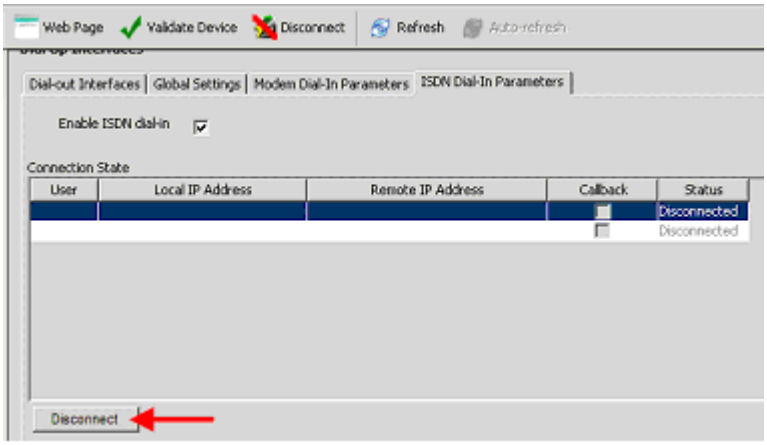
3. The IP addresses assigned to the BCM and the remote client are configurable. For the **modem dial in**, the default configuration is for the BCM to assign itself 10.10.14.1 and assign to the remote client 10.10.14.2. The settings can be changed to have the remote client assign itself an address or even assign the BCM an address. To configure these settings open the **Resources** folder, select the **Dial Up Interfaces** link and select the **Modem Dial In Parameters** tab.



4. For ISDN dial in, the default configuration is for the BCM to assign itself 10.10.18.1for the first dial-in connection, and 10.10.18.2 for the second dial-in connection. The BCM can have up to two simultaneous ISDN calls in progress. The BCM will by default assign the remote end 10.10.18.10 for the first dial-in connection and 10.10.18.11 to the second dial-in connection. The settings can be changed to have the remote client assign itself an address or even assign the BCM an address. To configure these settings open the **Resources** folder, select the **Dial Up Interfaces** link and select the **ISDN Dial In Parameters** tab.



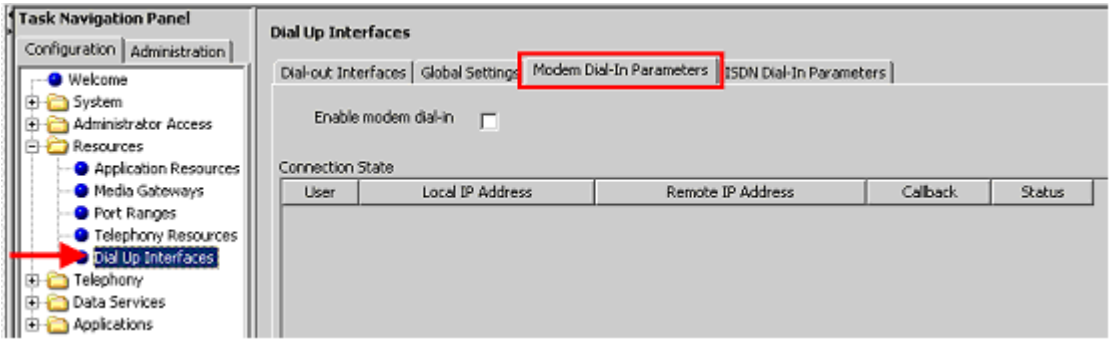
5. Finally, an administrator has the capability to disconnect a modem or ISDN call if they find that a modem or ISDN call is in progress.



Remote Access settings for Modem or ISDN configurations can be viewed by selecting:

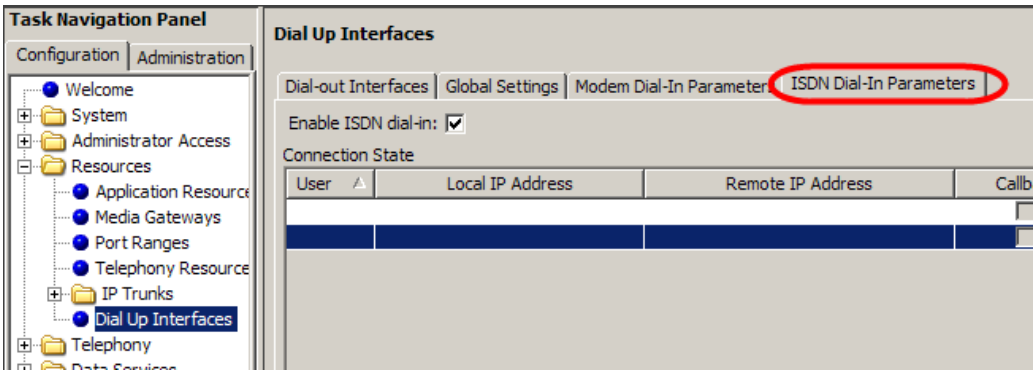
For Modem Configurations:

Select the **Configuration** tab, opening the **Resources** folder, selecting the **Dial Up Interfaces** link followed by the Modem **Dial-In Parameters** tab. Refer to the **Modem Dial-In Parameters** section of this guide for more information.



For ISDN Configurations

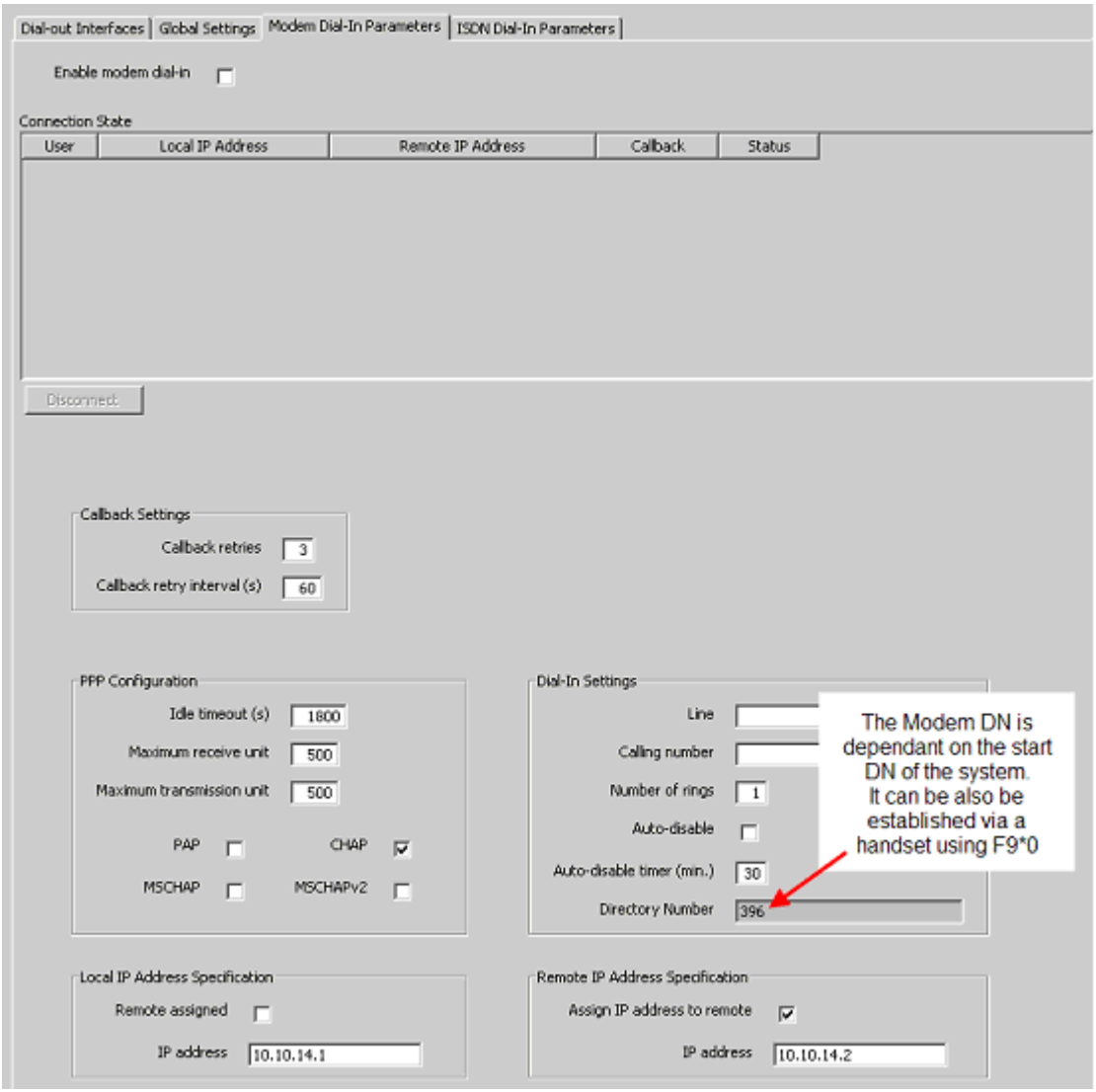
Select the **Configuration** tab, opening the **Resources** folder, selecting the **Dial Up Interfaces** link followed by the **ISDN Dial-In Parameters** tab. Refer to the **ISDN Dial-In Parameters** section of this guide for more information.



Modem Remote Access Service Specifics

For Modem dial in, the Auto-Disable feature will automatically disable the modem if no connections are established for a configurable period of time. The Auto-Disable feature is turned on by default and can be turned off. The modem can be enabled through Element Manager, using Feature 9*8 or the Startup Profile. If the modem is enabled using the Startup Profile, the Auto-Disable capability is turned off.

The modem has a Directory Number (DN) associated with it. This DN can be used to redirect a call to the modem. A call can be redirected to the modem DN using the F70 (Transfer) feature from any sets attached to the BCM, or it can be redirected to the modem DN using the Auto-Attendant feature. Any user on the BCM can redirect an active call at their set by using Feature 9*0 if they don’t know the modem DN. Feature 9*0 will also display the modem DN on any sets with at least 1 line display.



The modem can also be programmed to answer incoming lines directly after a configurable number of rings. Please be aware the most modems are programmed by default to give up on a connection after 60 seconds. If the number of rings and the amount of time it takes for the 2 modems to establish a connection take more than 60 seconds, the connection will fail.

If an administrator wants a modem to answer after a longer period than this default timeout, the calling modem answer timeout should be changed accordingly.

Internal calls to the modem will always be answered immediately. External calls transferred to the modem will be answered after 10 seconds. This gives enough time to wait and collect caller ID information which will be captured and logged every time the modem connects.

Modem Compatibility

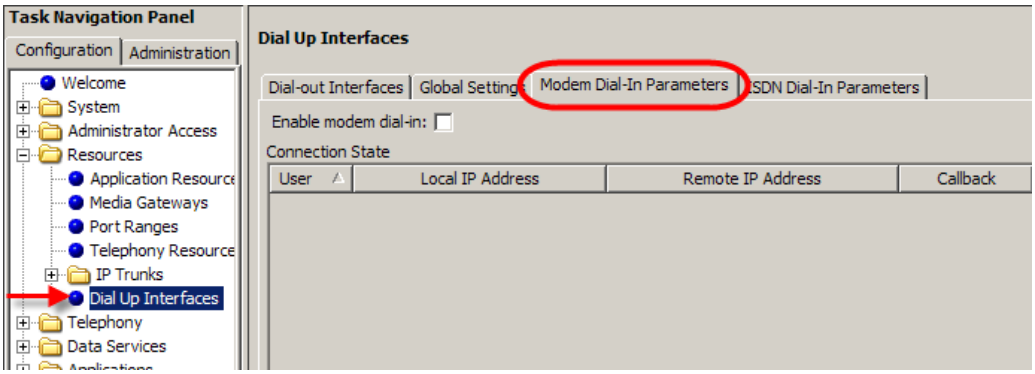
The internal modem is compatible with all V.34 modems, and has been tested with the following modems:

- U.S. Robotics Sportster 33.6 FaxModem (external modem)
- Microcom DeskPorte 28.8P (external modem)
- PCTEL 2304WT V.92 MDC (internal modem Dell Portable)
- U.S. Robotics Sportster 56K (external modem)

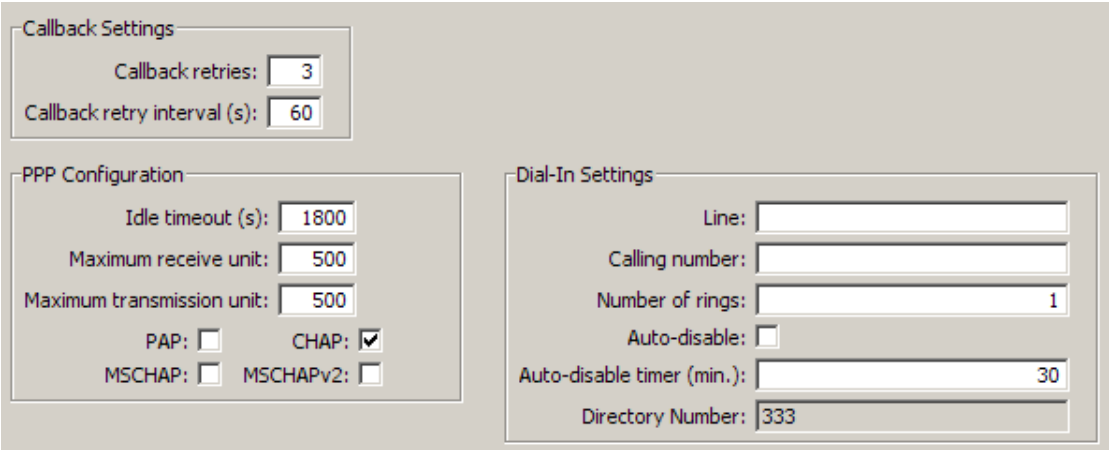
Modem Dial-In Parameters

The Modem Dial-In parameters controls Dial-in to the BCM for remote access. This panel is used to configure the modem for Dial-in. It also displays the connection status of the modem if one is in progress.

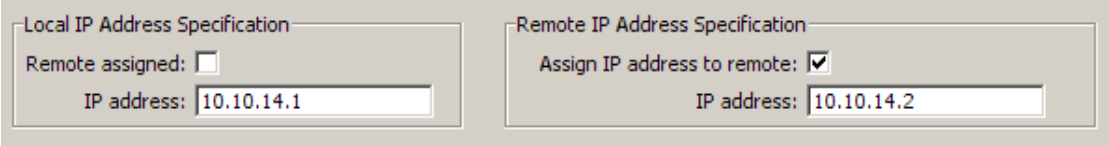
1. To view or change the current **Modem Dial-In Parameters** configuration, in Element Manager select the **Configuration** tab, open the **Resources** folder, click on the **Dial UP Interfaces** link, followed by the **Modem Dial-In Parameters** tab.



Attribute	Description
Enable Modem Dial-In	Enable or disable modem dial-in. Default: disabled
Connection State:	This is a table that shows the current dial in state if connected. Note: There is a maximum of one entry in this table (as there is only one modem). This table will be blank if no dial in connection is currently active.
User	Displays the user that is currently dialled in.
Local IP Address	The local IP address assigned to the dial-in connection.
Remote IP Address	The remote IP address of the dial-in connection.
Callback	This shows if callback is enabled for this dial-in connection.
Status	The status of the dial-in connection.



Attribute	Description
Callback Settings	
Callback retries	1-10 The number of attempts made by the BCM to dial-out to the remote end during callback. Default: 3
Callback retry interval(s)	0-360 Interval for successive connection attempts for dial-out during callback. Default: 60 seconds
PPP Configuration	
Idle timeout	Idle time after which, PPP will terminate the PPP connection. Default: 1800 seconds
Maximum Receive Unit	128-16384 The maximum size of the packets that can be received. Default: 500
Maximum Transmission Unit	128-16384 The maximum size of the packets that can be sent. Default: 500
Authentication support	Supported PPP authentication: PAP, CHAP, MSCHAP, MSCHAPv2. Default: CHAP.
Dial-In Settings	
Line	Line number monitored by the modem for incoming calls. Default: blank. A value of 0 = blank. Range: Min Target Line-Max Target Line
Calling Number	Analog modem uses this Calling Number (Calling ID - CLID) to detect an incoming data call.
Number of Rings	Number of rings after which the modem picks up an incoming call. Default: 1
Auto-Disable	Auto-disable the dial-in for modem after use. Default: disabled
Auto-Disable Timer (min)	Time after which the Dial-in for the modem is disabled after use. Default: 0 (0-30 Minutes)
Directory Number	Read-only number assigned to the analog modem. Used for manual transfer of call or by auto-attendant.



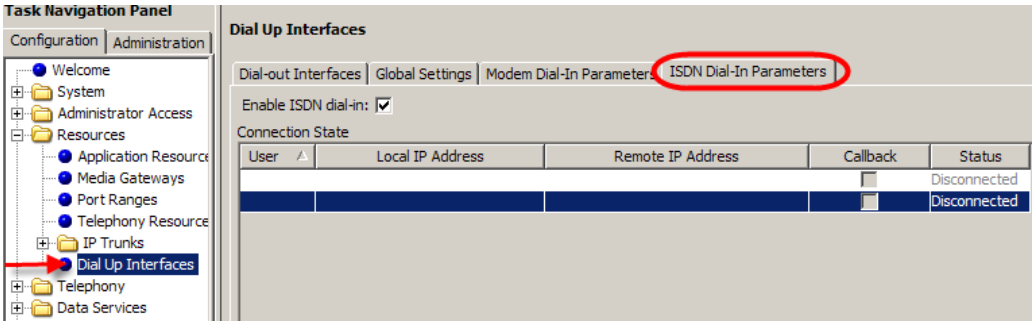
Attribute	Description
Local IP Address Specification	
Remote assigned	If selected, the BCM obtains its IP address from the remote end. Default: disabled.
IP Address	Use this IP Address as the local IP address for the PPP connection. This value is used when "Remote assigned" is disabled.

Attribute	Description
	Default: 10.10.14.1
Remote IP Address Specification	
Use IP address to remote	If selected, the BCM will assign the IP address specified in the "IP Address" field of this section to the remote end of the connection. Default: selected
IP Address	When the "Use IP address pool" is enabled BCM will assign to the remote end of the connection the IP address specified in this field. Default: 10.10.14.2

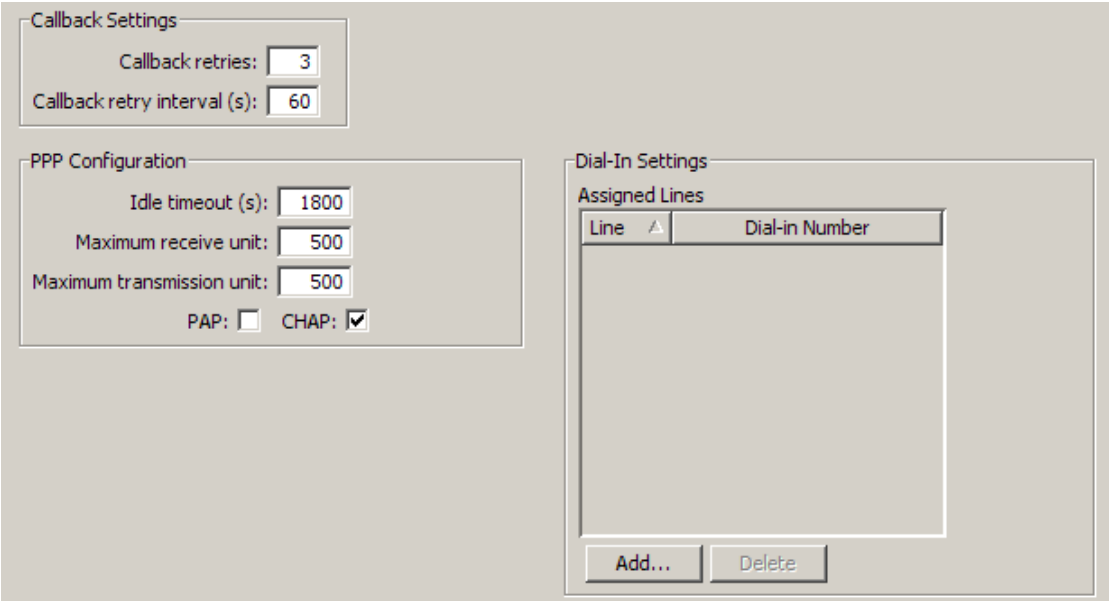
ISDN Dial-In Parameters

The **ISDN Dial-In Parameters** controls Dial-in to the BCM for remote access. This panel is used to configure the ISDN for Dial-in. It also displays the connection status of the ISDN connections if any are in progress. The tab and description of the fields are below.

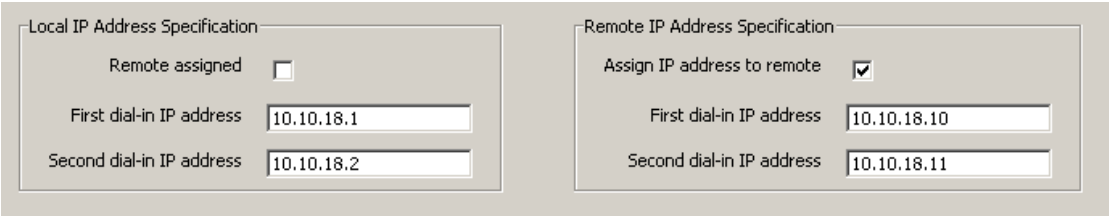
1. To view or change the current **ISDN Dial-In Parameters** configuration, in Element Manager select the **Configuration** tab, open the **Resources** folder, click on the **Dial UP Interfaces** link, followed by the **ISDN Dial-In Parameters** tab.



Attribute	Description
Enable ISDN Dial-In	Enable or disable modem dial-in. Default: disabled
Connection State	This is a table that shows the current dial-in state if connected.
User	Displays the user that is currently dialled in.
Local IP Address	The local IP address assigned to the dial-in connection.
Remote IP Address	The remote IP address of the dial-in connection.
Callback	This shows if callback is enabled for this dial-in connection.
Status	The status of the dial-in connection.



Attribute	Description
Callback Settings	
Callback retries	1-10 The number of attempts made by the BCM to dial-out to the remote end during callback. Default: 3
Callback retry interval(s)	0-360 Interval for successive connection attempts for dial-out during callback. Default: 60 seconds
PPP Configuration	
Idle timeout (s)	Idle time after which, PPP will terminate the PPP connection. Default: 1800 seconds
Maximum Receive Unit	128-16384 The maximum size of the packets that can be received. Default: 500
Maximum Transmission Units	128-16384 The maximum size of the packets that can be sent. Default: 500
Authentication support	Supported PPP authentication: PAP, CHAP. Default: CHAP.
Dial-In Settings	
Line	Line number monitored by the modem for incoming calls. Default: blank. A value of 0 = blank. Range: Min Target Line-Max Target Line
Dial in Number	Analog modem uses this Calling Number (Calling ID - CLID) to detect an incoming data call.


Local IP Address Specification
Remote assigned
First dial-in IP address 10.10.18.1
Second dial-in IP address 10.10.18.2
Remote IP Address Specification
Assign IP address to remote
First dial-in IP address 10.10.18.10
Second dial-in IP address 10.10.18.11

Attribute	Description
Local IP Address Specification	
Remote assigned	When enabled, BCM obtains its IP address from the remote end. Default: disabled.
First Dial In IP Address	The first IP address form the local pool used on the BCM for the dial-in connection. Default: 10.10.18.1

Attribute	Description
Second Dial In IP Address	The last IP address form the local pool used on the BCM for the dial-in connection. Default: 10.10.18.16
Remote IP Address Specification	
Assign IP Address to Remote	When enabled, BCM will assign the IP address specified in the "Remote Site IP Address" field of this section to the remote end of the connection. Default: enabled.
First Dial in IP Address	When the "Use IP address pool" is enabled, the BCM will assign to the remote end of the connection the IP address specified in this field. Default: 10.10.14.2
Second Dial In IP Address	The last IP address from the local pool used on the BCM for the dial-in connection. Default: 10.10.18.35

Creating a User Account

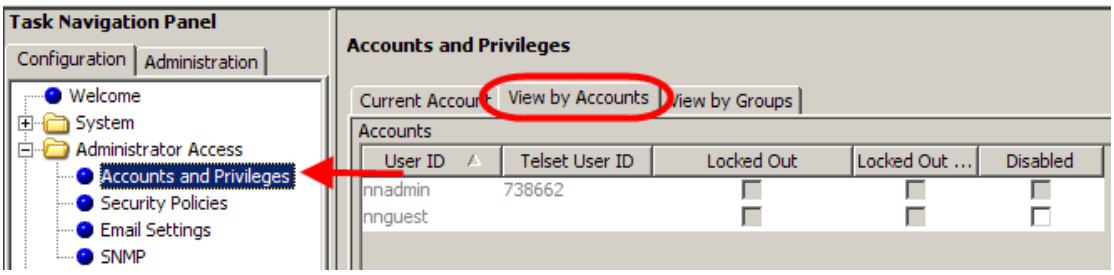
This section further details of how to create a User Account for Remote Access purposes.

From the **View by Accounts** screens you can set up or modify User Accounts, set the User ID & passwords for Element Manager/CallPilot Manager, and assign User Groups to the User Account.

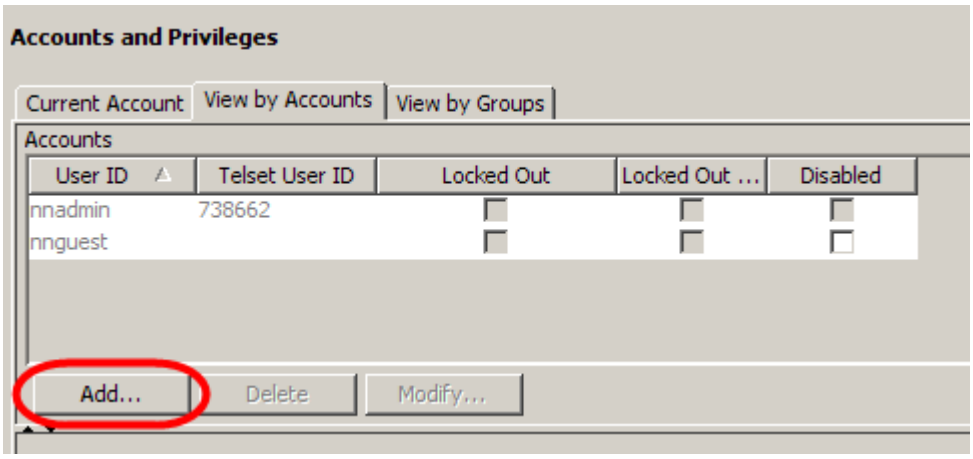
1. Log on to Element Manager.

2. From the **Configuration** tab, open the **Administrator Access** folder and select **Accounts & Privileges**.

3. Click on the **View by Accounts** tab.

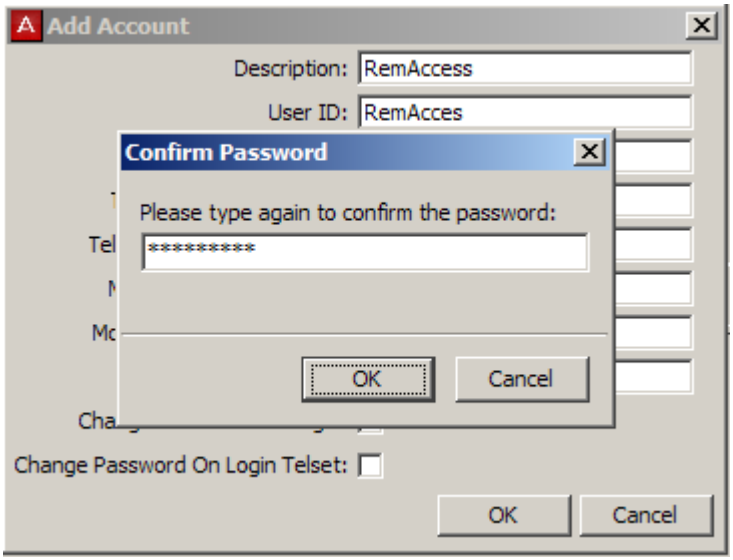


4. Click on **Add** to add a new user.



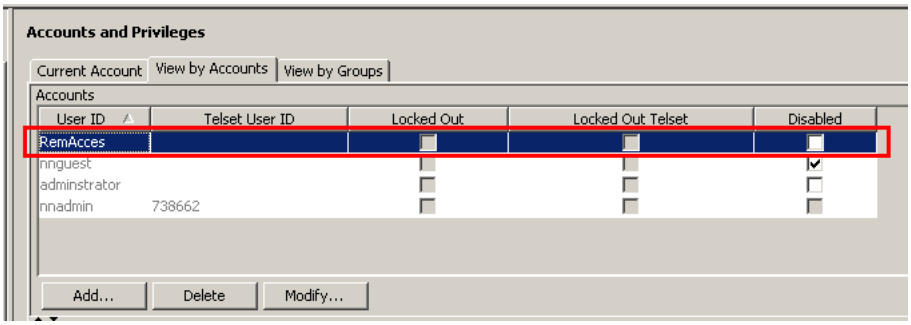
5. Enter a brief description, and then a **User ID** & **Password** (ensure password meets current Password Complexity Level (refer to the **Configuring Credential Complexity** section of the ***User Management Guide***)).

Note: The User ID & Password must be entered by the remote user when attempting to access the BCM.

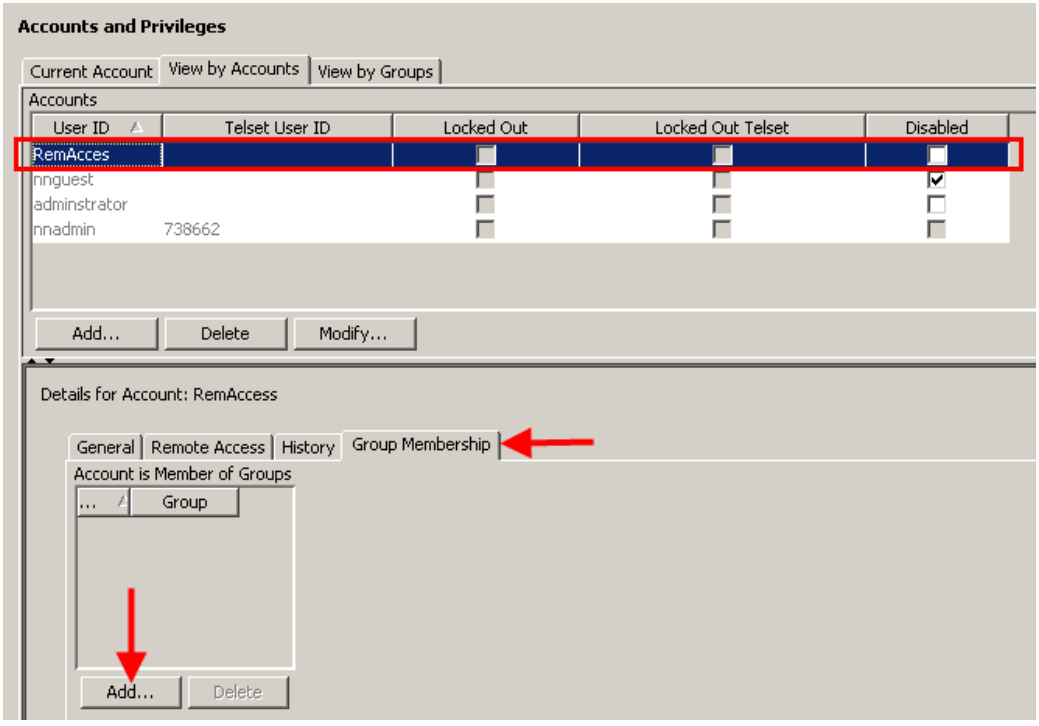


Note: Anytime a new password is entered, you will be asked to re-enter that password for confirmation.

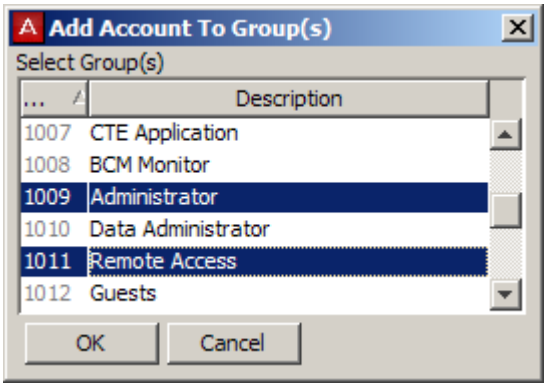
6. Click **OK** to save the new/changed details. If you have added a new account, the account will appear in the **Accounts** list.



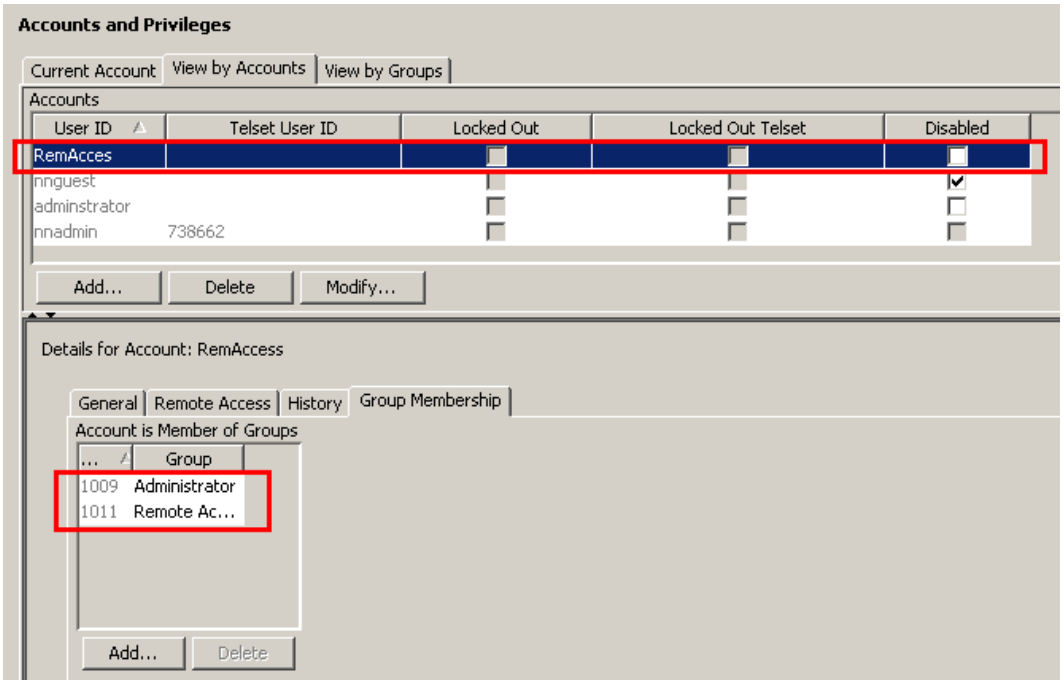
7. To assign a User Group to the selected account, click on the **Group Membership** tab in the lower window. To add a User Group to this account, click **Add**.



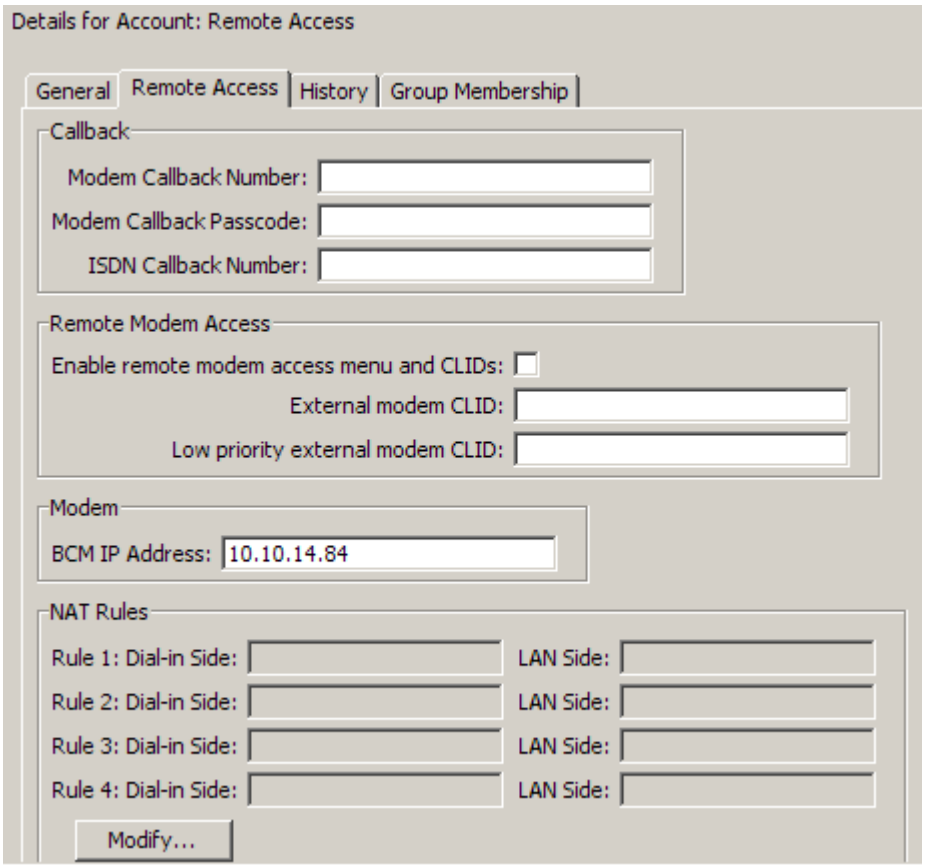
8. Select the groups to be assigned to this account. For Remote Access purposes, **Administrator** and **Remote Access** will need to be selected (you may wish to use the shift and/or ctrl keys to select multiple accounts), and click **OK**.



9. These groups will be added to the **Account is Member of Groups** list.



10. Click on the **Remote Access** tab. Enter the IP Address of the BCM to be used during Remote Access sessions. This should be in the same range as the Local and Remote IP Addresses specified during the **Modem Dial-in Parameters** and **ISDN Dial-In Parameters** (depending on which method will be used by this account) configuration earlier.



View by Accounts – Remote Access Tab Settings

Attribute	Description
Callback	
Modem Callback Number	Specifies a number the system will call to verify the dial-up user access.
Modem Callback Passcode	Specifies the passcode the system uses to confirm the callback is legitimate.
ISDN Callback Number	Specifies the number the system will call to verify the ISDN user Access.
Remote Modem Access	
Enable remote modem access menu and CLIDs	Indicates whether the user is allowed to enable modem remotely using Auto Attendant or Voice Mail menu. By default this is disabled.
External Modem CLID	If the call with matching calling line identification number is received, the BCM will redirect the call to the modem.
Low Priority External Modem CLID	If the call with matching calling line identification number is received, the BCM will redirect the call to the modem.
Modem	
BCM IP Address	Specifies the PPP IP address of the BCM when connecting with

Attribute	Description
	analog modem or ISDN terminal adaptors.
NAT Rules	This section is used to allow network devices on the LAN side to be accessed using an IP Address in the same range as the Local and Remote IP Addresses specified in the **Modem Dial-in Parameters** and **ISDN Dial-In Parameters** configuration screens. For example, the Dial in side address might be 10.10.10.89 and the LAN side address might be 192.168.15.24 to allow that LAN side address to be accessed.

Avaya Documentation Links

- Configuration – System Guide
- Administration & Security Guide